

Claims

1. Method for automatically differentiating between a sample liquid and a control liquid with the aid of an analytical measuring system which detects at least one property of the sample liquid or of the control liquid, the automatic differentiation being carried out on the basis of the presence of a special property of the control liquid or on the basis of at least two criteria which relate to the property of the sample liquid or of the control liquid detected by the measuring system.
2. Method as claimed in claim 1, characterized in that the analytical measuring system comprises test elements and instruments for measuring them.
3. Method as claimed in claim 2, characterized in that the measuring system comprises test elements that are evaluated photometrically and a photometer.
4. Method as claimed in claim 2, characterized in that the measuring system comprises test elements that are evaluated electrochemically and an electrochemical measuring instrument.
5. Method as claimed in one of the previous claims, characterized in that the automatic differentiation is based on a property of the control liquid, the property being caused by a substance added to the control liquid which does not occur in the sample liquid.
6. Method as claimed in claim 5, characterized in that the substance added to the control liquid is a dye.
7. Method as claimed in claim 5, characterized in that the substance added to the control liquid is electrochemically active.
8. Method as claimed in claim 6, characterized in that the dye is an IR dye which does not have a substantial absorption in the wavelength range in which the measurement signal for the analyte determination is detected.

9. Method as claimed in claim 5, characterized in that the substance added to the control liquid does not have an effect on the detection system of the analytical measuring system.
10. Method as claimed in claim 1, characterized in that the criteria are based on different wetting properties of the control liquid and sample liquid.
11. Method as claimed in claim 10, characterized in that a control solution containing an IR dye is used in a test system that is evaluated photometrically comprising photometric test elements and a photometer, and blood is used as the sample liquid and the photometer measures the absorption or remission in the IR range.
12. Method as claimed in claim 10, characterized in that a control solution containing an electrochemically active additive is used in a test system that is evaluated electrochemically comprising test elements that are evaluated electrochemically and an electrochemical measuring instrument, and blood is used as the sample liquid, and the electrochemical measuring instrument differentiates between the control solution and the sample liquid on the basis of different conductivities or viscosities.
13. Method as claimed in claim 10, characterized in that the rate of wetting in the initial phase of wetting is used as a first criterion for differentiating between sample liquid and control liquid and the stability of the measured signal directly after the initial phase of wetting is used as a second property.
14. Method as claimed in claim 1, in which the change in the measured signals in an initial phase is used as a first criterion and the change in the measured signals in an end phase is used as a second criterion.
15. Method as claimed in claim 1, in which the time period of an initial phase in which the measured values change is used as the first criterion and the change in the measured signals in an end phase in which the measured values essentially do not change compared to the initial phase is used as the second criterion.

16. Control liquid suitable for use in a method as claimed in one of the claims 1 to 13.
17. Control liquid as claimed in claim 14, characterized in that the control liquid contains an electrochemically active substance and/or a dye where the substance and/or the dye do not have an effect on the detection system of the measuring system.
18. Control liquid as claimed in claim 15, characterized in that the dye is an IR dye.